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CIA

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9 May 1958

## Defense Industry Consumption of Copper and Nickel

TO: DIA/DIV 255-A

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1. USSR and [REDACTED] have agreed on an estimate of direct military consumption of copper in the Sino-Soviet Bloc of 120,000 metric tons in 1956. CIA estimates that direct military consumption of copper was about the same in 1957. USSR and [REDACTED] have also agreed that direct military consumption of copper understates the role of copper in the Bloc's military programs; e.g., large quantities of copper are used for communications facilities.

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2. USSR and [REDACTED] agree that if the Bloc were to mobilize, total military requirements would be 355,000 tons or some 70 percent of total indigenous supply. This is so large a proportion of the available supply that it is inconceivable that the whole amount could be diverted from general industrial uses. Some of the military requirements obviously would have to go unfilled.

3. Information on the direct military consumption of nickel in the USSR is not available. Inasmuch as nickel enters into consumption principally via the steel industry, its demand is closely related to the production of steel. On the basis of the availability of nickel in 1956, the Sino-Soviet Bloc had only 1.2 pounds of nickel per ton of steel produced. In the Free World, there were 2.0 pounds of nickel per ton of steel produced, and in the U.S. 2.2 pounds per ton.

4. Ruble-dollar ratios and numerous reports of Bloc attempts to smuggle nickel from the Free World suggest that nickel is in tight supply in the USSR. The ruble-dollar ratio for steel mill products in the USSR is 6 to 1, but the ratio for nickel is 15 to 1. Nickel has been smuggled into the Bloc by concealment of the shipment under a non-strategic item (i.e. vegetables) or by concealment in compartments of trucks or automobiles, among other techniques. The goods were then smuggled across various border points into Switzerland for transshipment to the Bloc via Austria and/or Yugoslavia, or from West Berlin to the Soviet Zone of Germany. Other reported diversions in 1956 and 1957 included: (1) a series of 23 known shipments of nickel, comprising 70 tons, shipped to the Soviet Bloc in freight cars from Sweden via the free port of Basel; (2) a 14-ton shipment from Sweden to Denmark and from there on a Danish railway car by ferry to West Germany documented for a forwarding firm in Basel; (3) 8 tons of U.S. origin nickel cathodes diverted through the use of forged Yugoslavian official end-use certificates. A similar 15-ton shipment of U.S. origin cathodes supported by forged Yugoslavian official end-use certificates was stopped in the Netherlands.

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5. On the basis of these data, it is concluded that the Bloc is short of nickel, and that all consumers including the military, are forced to manage with minimum supplies. Any increases in the availability of nickel probably would permit greater use of nickel in military end items.

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**Distribution:**

Orig. & 1 - Addressee  
1 - Ch/E  
3 - D/M

ORR:D/H: [REDACTED]:nkg:0011/9MAY 58

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